

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A single-chain multi-functional polypeptide comprising
 - (a) a first domain comprising a binding-site of an antibody or an immunoglobulin chain thereof specifically recognizing the CD19 antigen; and
 - (b) a second domain comprising a binding site of an antibody or an immunoglobulin chain thereof recognizing the human CD3 antigen,

wherein said domains are arranged in the order V_LCD19- V_HCD19-V_HCD3-V_LCD3.
2. (Original) The polypeptide of claim 1, wherein said two domains are connected by a polypeptide linker.
3. (Previously Presented) The polypeptide of claim 1, wherein said first and/or second domain correspond to a V_H and V_L region from a natural antibody.
4. (Previously Presented) The polypeptide of claim 1, wherein said antibody is monoclonal antibody, synthetic antibody, or humanized antibody.
5. (Previously Presented) The polypeptide of claim 4, wherein at least one of said domains is a single-chain fragment of the variable region of the antibody.
6. (Canceled)
7. (Previously Presented) The polypeptide of claim 2, wherein said polypeptide linker comprises a plurality of glycine, alanine, serine residues or combinations thereof.
8. (Previously Presented) The polypeptide of claim 2, wherein said polypeptide linker comprises a plurality of consecutive copies of an amino acid sequence.

9. (Previously Presented) The polypeptide of claim 2, wherein said polypeptide linker comprises 1 to 5 amino acid residues.

10. (Previously Presented) The polypeptide of claim 9, wherein said polypeptide linker comprises the amino acid sequence Gly Gly Gly Gly Ser.

11. (Previously Presented) The polypeptide of claim 1, comprising at least one of said first or second domains, wherein said first domain comprises at least one CDR of the V_H and V_L region comprising the amino acid sequence encoded by the DNA sequence depicted in Figure 8 from nucleotides 82 to 414 (V_L) and nucleotides 460 to 831 (V_H) and, wherein said second domain comprises at least one CDR of the V_H and V_L region comprising the amino acid sequence encoded by the DNA sequence depicted in Figure 8 from nucleotides 847 to 1203 (V_H) and nucleotides 1258 to 1575 (V_L).

12. (Previously Presented) The polypeptide of claim 1, wherein
(a) said binding site of the first domain has an affinity of at least about 10⁻⁷ M; and/or
(b) said binding site of the second domain has an affinity of less than about 10⁻⁷ M.

13. (Previously Presented) The polypeptide of claim 1, wherein said polypeptide is a bispecific single-chain antibody.

14. (Previously Presented) The polypeptide of claim 1, comprising at least one further domain.

15. (Original) The polypeptide of claim 14, wherein said further domain is linked by covalent or non-covalent bonds.

16. (Previously Presented) The polypeptide of claim 14, wherein said at least one further domain comprises an effector molecule having a conformation suitable for biological activity, capable of sequestering an ion or selective binding to a solid support or to a preselected determinant.

17.-19. (Canceled)

20. (Previously Presented) A method for the preparation of a single-chain multi-functional polypeptide comprising:

cultivating a cell transfected with a polynucleotide which upon expression encodes the single-chain multi-functional polypeptide of claim 1; and
isolating said polypeptide from the cell.

21. (Currently Amended) A composition comprising a single-chain multi-functional polypeptide comprising:

(a) a first domain comprising a binding-site of an antibody or an immunoglobulin chain thereof specifically recognizing the CD 19 antigen; and

(b) a second domain comprising a binding site of an antibody or an immunoglobulin chain thereof recognizing the human CD3 antigen,

wherein said domains are arranged in the order V_LCD19- V_HCD19-V_HCD3-V_LCD3.

22. (Previously Presented) The composition of claim 21 which is a pharmaceutical composition optionally further comprising a pharmaceutically acceptable carrier.

23. (Original) The composition of claim 21, which is a diagnostic composition optionally further comprising suitable means for detections.

24-29. (Canceled)

30. (Currently Amended) A method for the treatment of B-cell malignancies, B-cell mediated autoimmune diseases or the depletion of B-cells comprising administering to a human afflicted with said malignancies, diseases or depletion, an effective amount of:

a single-chain multi-functional polypeptide comprising:

(a) a first domain comprising a binding-site of an antibody or an immunoglobulin chain thereof specifically recognizing the CD 19 antigen; and

(b) a second domain comprising a binding site of an antibody or an immunoglobulin chain thereof recognizing the human CD3 antigen,
wherein said domains are arranged in the order V_LCD19- V_HCD19-V_HCD3-V_LCD3.

31.-32. (Canceled)

33. (Previously Presented) The method of claim 30, wherein said B-cell malignancy is non-Hodgkin lymphoma.

34.-36. (Canceled)

37. (Previously Presented) The method of claim 20, wherein said first and/or second domain correspond to a V_H and V_L region from a natural antibody.

38.-39. (Canceled)

40. (Previously Presented) The method of claim 20, wherein the single-chain multi-functional polypeptide comprises at least one further domain.

41. (Previously Presented) The method of claim 30, wherein said first and/or second domain correspond to a V_H and V_L region from a natural antibody.

42.-43. (Canceled)

44. (Previously Presented) The polypeptide of claim 1, comprising at least one of said first or second domains, wherein said first domain comprises at least two CDRs of the V_H and V_L region comprising the amino acid sequence encoded by the DNA sequence depicted in Figure 8 from nucleotides 82 to 414 (V_L) and nucleotides 460 to 831 (V_H) and, wherein said second domain comprises at least two CDRs of the V_H and V_L region comprising the amino acid sequence encoded by the DNA sequence depicted in Figure 8 from nucleotides 847 to 1203 (V_H) and nucleotides 1258 to 1575 (V_L).

45. (Previously Presented) The polypeptide of claim 1, comprising at least one of said first or second domains, wherein said first domain comprises the three CDRs of the V_H and V_L region comprising the amino acid sequence encoded by the DNA sequence depicted in Figure 8 from nucleotides 82 to 414 (V_L) and nucleotides 460 to 831 (V_H) and,

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wherein said second domain comprises the three CDRs of the V_H and V_L region comprising the amino acid sequence encoded by the DNA sequence depicted in Figure 8 from nucleotides 847 to 1203 (V_H) and nucleotides 1258 to 1575 (V_L).